

Remarks

Claims 1-23 and 31-39 are pending in the present application. Claims 1, 16-18, 32 and 33 have been amended. New Claims 34-39 have been added. Support for the amendments and new claims can be found on pages 6-11 and 17-18 of the specification. Applicants respectfully request consideration of the present claims in view of the foregoing amendments and following remarks.

I. Claim Rejections under 35 U.S.C. §112, First Paragraph

The Examiner rejected Claims 1-23 and 31-33 under 35 U.S.C. §112, first paragraph, as containing subject matter not described in the specification in such a way as to enable one skilled on the art to make and/or use the invention. The Examiner remarked that Claims 1 and 32-33 require specific permeability properties, and that Applicants' specification teaches that various structures can be used in conjunction with the superabsorbent material. The Examiner commented that the disclosure leads the skilled artisan to the understanding that any of these structures, when used in conjunction with the claimed superabsorbent material, will inherently result in the claimed properties; however, that Applicants stated in a prior Response that the "absorbent composites of the present invention have unique and unexpected composite permeability," and that "the composites of the present invention have a much higher composite permeability than the prior art composites, but have a lower capacity." The Examiner remarked that the specification does not teach how to alter the inherent properties of a superabsorbent material in order to create a material having a higher permeability and lower capacity, and does not describe any specific configurations of absorbent structures which can achieve the claimed properties. The Examiner concluded that Applicants' disclosure is so vague and indefinite that it leaves the alleged invention in the realm of speculation requiring further experimentation in order to achieve the claimed properties. Applicants respectfully traverse this rejection for the following reasons.

Applicants claim an absorbent structure that comprises a superabsorbent material with specified Gel Bed Permeability values, namely greater than about $70 \times 10^{-9} \text{ cm}^2$, and Absorbency Under Load values, namely less than about 25 g/g at 0.6 psi. The superabsorbent material consists essentially of a crosslinked resin selected from nonionic polymers, nonionic copolymers, anionic polymers, anionic copolymers, acidic polymers, acidic copolymers or mixtures thereof.

Applicants respectfully submit that the test for enablement is whether a disclosure, when filed, contained sufficient information regarding the subject matter of the claims as to enable one skilled in the pertinent art to make and use the claimed invention. See MPEP 2164.01. The specification clearly provides for the preparation of absorbent structures using superabsorbent materials with the above claimed fluid properties, allowing one skilled in the art to make and use the claimed invention without undue experimentation. See pages 29-34. Applicants respectfully submit that "as long as the specification discloses at least one method for making and using the claimed invention that bears a reasonable correlation to the entire scope of the claim, then the enablement requirement of 35 U.S.C. 112 is satisfied. MPEP 2164.01(b), quoting *In re Fisher*, 427 F.2d 833, 839, 166 U.S.P.Q. 18, 24 (C.C.P.A. 1970). Applicants have provided at least six examples of an absorbent structure that comprises a superabsorbent material with Applicants' claimed fluid properties, and have thus satisfied the enablement requirement. In addition, Applicants provide a list of suitable superabsorbents on page 9 of the specification. Applicants respectfully submit that their invention does not claim all superabsorbent materials, but only a subset of superabsorbents with Applicants' claimed fluid properties.

Therefore for at least the above reasons, Applicants respectfully submit that Claims 1-23 and 31-33 are enabled by the specification, and respectfully request the withdrawal of this rejection.

II. Claim Rejections under 35 U.S.C. §112, Second Paragraph

The Examiner rejected Claims 1-23 and 31-33 under 35 U.S.C. §112, second paragraph, for failing to set forth the subject matter which Applicants regard as their invention. The Examiner commented that Claims 1-23 and 31-33 fail to correspond in scope with that which Applicants regard as the invention because of Applicants' statement in a prior Response that "... applicant's absorbent structures utilize only superabsorbent materials and fibers." The Examiner concluded that this statement indicates that the invention is different from what is defined in the claims, since the claims utilize the open language "comprising" which allows for the inclusion of other materials. Applicants respectfully traverse this rejection for the following reasons.

Applicants respectfully submit that the above quoted statement "... applicant's absorbent structures utilize only superabsorbent materials and fibers" is incomplete. The sentence at issue reads that the "... absorbent structures utilize only superabsorbent materials and fibers that

provide a high composite permeability with a lower capacity" Thus, this sentence does not limit the absorbent structures to superabsorbent materials and fibers. This sentence only qualifies the particular superabsorbent materials and fibers used in these structures. Applicants submit that this statement does not contradict the "comprising" language used in Applicants' claims. Accordingly, Applicants request the withdrawal of this rejection.

The Examiner rejected Claims 1-23 and 31-33 under 35 U.S.C. §112, second paragraph, as indefinite for failing to particularly point out and distinctly claim the subject matter which Applicants regard as the invention. In particular, the Examiner remarked that Claims 1 and 33 were indefinite because these claims merely set forth physical characteristics desired in an article, and not specific compositions which would meet such characteristics, and were thus invalid as vague and indefinite because they covered any conceivable combination of ingredients. The Examiner further found that Claims 1 and 33 would impart desired characteristics too broad and indefinite since they purport to cover everything which will perform the desired functions, regardless of composition, and thus in effect, recite compounds by what they do rather than what they are. Applicants respectfully traverse this rejection for the following reasons.

Applicants respectfully assert that the breadth of a claim is not to be equated with indefiniteness. MPEP §2173.04, quoting *In re Miller*, 441 F.2d 689, 169 U.S.P.Q. 597 (C.C.P.A. 1971). Moreover, "if the scope of the subject matter embraced by the claims is clear, and if applicants have not otherwise indicated that they intend the invention to be of a scope different from that defined in the claims, then the claims comply with 35 U.S.C. §112, second paragraph." MPEP §2173.04. Claims 1-23 and 31-33 clearly set forth the subject matter which Applicants regard as their invention. The scope of each claim is clearly defined at least in terms of the fluid properties of Applicants' claimed invention, and Applicants have not otherwise indicated that they intend the invention to be of a scope different from that defined in the claims. Thus, Claims 1-23 and 31-33 comply with 35 U.S.C. §112, second paragraph. Applicants also draw the Examiner's attention to Claim 1 of U.S. Patent No. 5,669,894 (to *Goldman et al*). This patented claim defines an absorbent member in terms of a continuous zone of a hydrogel-forming absorbent polymer and the associated fluid properties of this hydrogel-forming polymer. This shows that claims are not considered indefinite under section 112, second paragraph, when the claimed absorbent structure is defined in terms of a component and the fluid properties of the

component. Similarly, Applicants' Claim 1 defines an absorbent structure in terms of the components of the structure (superabsorbent material and fiber) and the associated fluid properties of the superabsorbent material. Thus, this claim also defines definite subject matter.

Applicants also assert that despite the Examiner's contentions regarding claiming an invention in terms of its desired functions, functional language is not objectionable in and of itself. See MPEP § 2173.05(g). "There is nothing indefinite in the use of claim language which defines particular amounts according to a functional criterion." *In re Spiller*, 500 F.2d 1170 (C.C.P.A. 1974) (citing *In re Fuetterer*, 319 F.2d 259 (1963), *In re Swinehart*, 439 F.2d 210 (C.C.P.A. 1971)). By definition, "functional" language defines an invention by what it does rather than what it is. See *Swinehart*, 439 F.2d at 212-213. Specifically, the *Swinehart* court remarked, "[w]e take the characterization 'functional' to indicate nothing more than the fact that an attempt is being made to define something (in this case, a composition) by what it does rather than by what it is (as evidenced by specific structure or material, for example)." *Id.* At 212. In fact, courts have "recognized the practical necessity for the use of functional language." *Id.* Therefore, Claims 1-23 and 31-33 may be properly defined in terms of the desired fluid functions of the claimed absorbent structures in order to define the invention by what it does, rather than by what it is.

Finally, Applicants assert that the second paragraph of 35 U.S.C. § 112 requires claims to set out and circumscribe a particular area with a reasonable degree of precision and particularity. See *In re Johnson*, 558 F.2d 1008, 1015 (C.C.P.A. 1977). In making this determination, the definiteness of the language employed in the claims must be analyzed, not in a vacuum, but always in light of the teachings of the prior art and of the particular application disclosure, as it would be interpreted by one possessing the ordinary level of skill in the pertinent art. *Id.* When the present Claims 1-23 and 31-33 are read in light of the disclosure, including the comparative examples, the claims are sufficiently clear.

For example, the specification on page 6, lines 6-28 and page 9, lines 29-37, provide various examples of superabsorbent materials that may comprise Applicants claimed structures. Various fibers are set forth on page 11, lines 1-19. Also, as set forth on page 10, lines 1-18, the superabsorbent material may be contained in a containment means that may include many different types of fiber structures or forms, including, but not limited to, air-laid or wet-laid fibrous matrices, meltblown webs of fibers, air laid heat-fused webs of synthetic materials, open-

celled foams and the like. Additionally, as set forth on page 10, lines 19-37, the containment means may comprise a pocket comprising two layers of material, which may be cloth-like wovens and nonwovens, closed or open-celled foams, perforated films, elastomeric materials, or fibrous webs; or may comprise a polymeric film to which the superabsorbent material is attached.

In regards to the processing of the absorbent structure, as shown at page 12, lines 19-36, the superabsorbent material may be incorporated into a fibrous substrate, which includes, but is not limited to, nonwoven and woven fabrics. Alternatively, the superabsorbent material and fibrous material may be mixed, such as with a known air-mixing process, and may be distributed uniformly or non-uniformly (page 13, lines 1-16). The absorbent composite may contain a superabsorbent layer or layers, as described at page 13, lines 17-28.

Applicants' claimed invention must be read in light of the specification, and since the specification clearly defines the possible compositions and structures, Applicants respectfully assert that these claims are definite to one of ordinary skill in the art, who would be able to make and use Applicants' claimed invention using the descriptions set forth in the specification.

Therefore, for at least the reasons given above, Applicants respectfully assert that Claims 1-23 and 31-33 are definite, and respectfully request the withdrawal of this rejection.

II. Prior Art Rejections

The Examiner rejected Claims 1-23 and 31-33 under 35 U.S.C. §103(a), as obvious over, U.S. Patent No. 5,669,894 to *Goldman et al.* (hereafter Goldman '894), and U.S. Patent No. 6,380,456 to *Goldman* (hereinafter Goldman '456). The Examiner found that these references teach an Absorbency Under Load (Performance Under Pressure) of about 23 g/g, which when measured at Applicants' pressure, results in overlap with Applicants' claimed property. The Examiner also found that these references teach the same superabsorbent material claimed by Applicant, and therefore the Absorbency Under Load (AUL) disclosed in these references is inherently equivalent to the AUL of Applicants' claimed invention. Applicants respectfully traverse this rejection for the following reasons.

Applicants' pending Claim 1 is directed to an absorbent structure comprising about 30 to about 90 weight percent superabsorbent material, and from about 70 to about 10 weight percent fibers, wherein the superabsorbent material has a Gel Bed Permeability (GBP) value greater than about $70 \times 10^{-9} \text{ cm}^2$, and an AUL value at 0.6 psi of less than about 25 g/g, and wherein the

superabsorbent material consists essentially of a crosslinked resin selected from nonionic polymers, nonionic copolymers, anionic polymers, anionic copolymers, acidic polymers, acidic copolymers or mixtures thereof.

Claim 32 is directed to a disposable garment comprising at least one absorbent structure with the properties of Claim 1. Claim 33 is directed to an absorbent garment comprising a body-side liner, an outer cover and an absorbent structure with the properties of Claim 1.

U.S. Patent No. 5,669,894 to Goldman et al.

Goldman '894 is directed to an absorbent member having at least one region containing an hydrogel-forming absorbent polymer, in an amount from about 60 to 100% by weight, which provides a continuous fluid transportation zone in a swollen state. The absorbent polymer has a Performance under Pressure (PUP) capacity of at least about 23 g/g under a pressure of 0.7 psi (col. 7, lines 1-3). Applicants respectfully assert that Goldman fails to teach or suggest Applicants' claimed invention. The Goldman absorbent polymer and the superabsorbent materials of Applicants' invention have capacity values at opposite ends of the capacity spectrum. As such, the present invention provides absorbent structures that are unconventional to known or available absorbent composites, such as the Goldman absorbent members.

Applicants respectfully submit that the fluid properties of Applicants' claimed superabsorbent are not present in the Goldman '894 absorbent members, since the Goldman absorbent members require an absorbent polymer with a high capacity of at least about 23 g/g at 0.7 psi. In addition, Goldman teaches away from lower capacity absorbents. For example Goldman teaches, that its absorbent polymer (superabsorbent) "needs to be capable of absorbing large quantities of body fluids in a reasonable period of time under usage pressures." See column 11, lines 62-66. Goldman also teaches that in order for an absorbent core of minimal weight and thickness, to be able to deliver a high storage capacity, the absorbent polymer needs to have a relatively high PUP capacity. See column 12, lines 5-9. In addition, Goldman teaches that the absorbent polymer needs to be capable of absorbing large quantities of body fluid, or otherwise the absorbent member will be less effected at absorbing fluid, which results in an absorbent core with insufficient temporary holding capacity to contain subsequent gushes of body fluid, and which can leak prematurely. See column 11, line 64 – column 12, line 5. Thus, Goldman clearly teaches away from a low capacity superabsorbent, since such a superabsorbent would produce an absorbent member that is ineffective at absorbing fluid. Since Goldman uses high capacity

superabsorbents, Applicants respectfully submit that Goldman absorbent polymers do not possess the fluid properties of Applicants' superabsorbents.

In contrast to Goldman, Applicants' have determined that lower capacity superabsorbents can provide improved composite performance. See page 7, lines 9-15 of the specification. Applicants have found that the higher capacity superabsorbents can be less effective because they are more prone to lower permeability, and the resultant composite cannot acquire liquid, at the rate required, during the life of the composite. Contrary to Goldman, the present invention uses lower capacity superabsorbents with high permeability, which in turn, provide absorbent structures that are unconventional in the art.

The Goldman absorbent polymers do not inherently possess the fluid properties of Applicants' claimed superabsorbent materials. Goldman discloses a PUP measurement that may be similar to Applicants' claimed AUL. However, Goldman discloses a lower limit on capacity, whereas Applicants disclose an upper limit on capacity. Goldman desires a PUP of at least about 23 g/g, 25 g/g or 29 g/g, at a pressure of 0.7 psi, for 60 minutes (column 12, lines 22-31 and column 57, lines 13-29). Applicants disclose an AUL of less than about 25 g/g, 24 g/g, 23 g/g or 21 g/g, at a pressure of 0.6 psi, for 60 minutes (specification pages 7-9). While there might appear to be an overlap in these ranges, this is incorrect due to the fact that the measurements are at different pressures, and since it is well known in the art, that as pressure increases, capacity decreases. As such, if the pressure of the PUP measurements in Goldman were decreased to 0.6 psi, the resulting capacity would be greater than 25 g/g. Conversely, if the AUL measurement of Applicants' claimed invention were increased to 0.7 psi, the capacity would be less than 23 g/g. As provided in a prior "Amendment and Response," filed August 22, 2002, U.S. Patent No. 5,601,542 discloses data (Tables 2 and 5) that clearly show that as pressure increases, capacity of absorbent materials decreases. The analysis of the 32 total samples in Tables 2 and 5 of this patent shows an average drop of about 2.5 g/g in capacity over the range of 0.6 psi to 0.7 psi. As such, Goldman's materials would have a resulting PUP of greater than 25.5 g/g at 0.6 psi. Since Goldman desires higher capacity absorbent polymers, it would not have been obvious to use a superabsorbent material with a capacity of less than 25 g/g at 0.6 psi, since this would teach away from the intended purpose of Goldman.

For at least the reasons given above, Applicants respectfully assert that Goldman fails to teach or suggest Claims 1 and 32-33. Since Claims 2-23 and 31 recite additional claim features

and depend directly or indirectly from Claims 1, Applicants also respectfully assert that Goldman fails to teach or suggest these remaining claims. Accordingly, Applicants respectfully request the withdrawal of this rejection.

U.S. Patent No. 6,380,456 to Goldman

Goldman '456 is directed to compositions comprising at least one cationic ion-exchange hydrogel-forming polymer and at least one anionic ion-exchange hydrogel-forming polymer, wherein the composition exhibits improved absorbency characteristics relative to comparable mixtures of the hydro-forming polymers in their neutralized state. Contrary to Goldman '456, Applicants do not claim the use of the combination of anionic and cationic polymers in the superabsorbent materials. Applicants respectfully submit that Goldman '456 fails to teach or suggest Applicants' claimed invention since Goldman '456 teaches the use of the combination of anionic and cationic polymers in its hydrogel composition.

For at least the reasons given above, Applicants respectfully assert that Goldman fails to teach or suggest Claims 1 and 32-33. Since Claims 2-23 and 31 recite additional claim features and depend directly or indirectly from Claims 1, Applicants also respectfully assert that Goldman fails to teach or suggest these remaining claims. Accordingly, Applicants respectfully request the withdrawal of this rejection.

The Examiner rejected Claims 1-23 and 31-33 under 35 U.S.C. §103(a), as obvious over, U.S. Patent No. 6,261,679 to *Chen et al.* (hereafter Chen). Applicants respectfully traverse this rejection for the following reasons.

The Chen reference is directed to fibrous absorbent structures that are wet stable and have a large void volume with a density below the critical density of the fiber employed. These fibrous pulp structures are not superabsorbent materials, and therefore, Chen is not directed to superabsorbent materials. Chen only makes brief references to the inclusion of superabsorbent materials into its fibrous structures. Chen does not teach or suggest superabsorbent materials with the fluid properties of Applicants' claimed invention. Chen teaches high capacity fibrous structures, not superabsorbent materials. Chen desires high capacity fibrous structures with an AUL, at 0.3 psi, 60 minutes, greater than 6 g/g, and preferably within a range of about 9 to 40 g/g. See column 34, lines 54-60 and column 35, lines 45-56. Moreover, Chen teaches away from using superabsorbent materials with low capacity values, since Chen uses superabsorbents

to obtain especially high AUL values in its absorbent structures (see column 35, lines 49-56). Chen desires higher capacity absorbent structures; thus, it would not have been obvious to use a low capacity superabsorbent material, since this would teach away from producing a high capacity, high void volume fibrous absorbent structures.

For at least the reasons given above, Applicants respectfully assert that Chen fails to teach or suggest Claims 1 and 32-33. Since Claims 2-23 and 31 recite additional claim features and depend directly or indirectly from Claims 1, Applicants also respectfully assert that Chen fails to teach or suggest these remaining claims. Accordingly, Applicants respectfully request the withdrawal of this rejection.

The Examiner rejected Claims 1-23 and 31-33 under 35 U.S.C. §103(a), as obvious over, U.S. Patent No. 6,235,965 to *Beihoffer et al.* (hereafter *Beihoffer*). The Examiner found that *Beihoffer* teaches the use of fibers and an AUL within Applicants' claimed range. Applicants respectfully traverse this rejection for the following reasons.

Beihoffer is directed to multi-component superabsorbent gel particles. *Beihoffer* teaches the multicomponent particles that comprise at least one acidic water-absorbing resin and at least one basic water-absorbing resin. Contrary to *Beihoffer*, Applicants do not claim the use of the combination of an acidic polymer and a basic polymer in the superabsorbent materials. Applicants respectfully submit that *Beihoffer* fails to teach or suggest Applicants' claimed invention since *Beihoffer* teaches the use of the combination of acidic and basic polymers in its superabsorbent material.

For at least the above reason, Applicants respectfully submit that *Beihoffer* fails to teach or suggest Claims 1, 32 and 33. Since Claims 2-23 and 31 recite additional claim features and depend directly or indirectly from Claims 1, Applicants also respectfully assert that *Beihoffer* fails to teach or suggest these remaining claims. Accordingly, Applicants respectfully request the withdrawal of this rejection.

The Examiner rejected Claims 1-23 and 31-33 under 35 U.S.C. §103(a), as obvious over, U.S. Patent No. 5,676,660, to *Mukaida et al.* (hereafter "*Mukaida*"). The Examiner found that *Mukaida* teaches an AUL of 20 in column 3, line 56. Applicants respectfully traverse this rejection for the following reasons.

Mukaida is directed to absorbent products comprising a liquid permeable surface sheet, a liquid non-permeable back sheet and an absorbent layer located between the surface and back sheets. Mukaida desires that these products have high capacities. Mukaida does not discuss permeabilities.

Mukaida teaches absorbent products that require high capacity, water-absorbent resins. The examples disclosed in Mukaida all use resins having an AUL of 28 g/g (0.3 psi, 30 minutes), or higher. Applicants respectfully submit that known and available superabsorbent materials desire higher capacities, like those in Mukaida, without regard for how this fluid is absorbed by the final composite structure. As such, these materials can leak, since these high capacity composites can be less effective at acquiring liquid, at the rate required, during the life of the composite. Mukaida fails to teach or suggest absorbent products that comprise low capacity resins with Applicants' claimed fluid properties. Thus, Mukaida fails to teach or suggest Applicants' claimed structures.

In addition, Mukaida teaches absorbent products that have intake rates that are comparably slower than what is taught in Applicants' invention. Mukaida's absorbent products have low intake rates, with the fastest rate measured at 1.6 ml/sec, resulting from a 49 second absorption rate for 80 ml of artificial urine (Example 4 in Table 1 and column 8, lines 23-35). Lower intake rates are indicative of absorbent products that comprise low permeability component(s), and thus have a lower composite permeability. Contrary to the absorbent products disclosed in Mukaida, Applicants disclose absorbent structures that exhibit high intake rates of 2.1 ml/sec or greater (Table 8), indicative that these structures comprise high permeability superabsorbent materials. This comparison indicates that the Mukaida products do not contain high permeable superabsorbents. Thus, Mukaida fails to teach or suggest Applicants' claimed invention.

Applicants also tested a commercial superabsorbent, Sanyo AD-890, which was shown to have fluid properties that fall within the properties disclosed in Mukaida, but outside the properties disclosed in Applicants' invention. Applicants' results demonstrate that the absorbent products in Mukaida do not possess the fluid properties of Applicants' claimed structures. The Sanyo resin was analyzed to determine the following fluid properties: "Gel Bed Permeability," "Absorbency Under Loading (0.3 psi for 30 minutes)" and "Absorbency Under Pressure - Free State." The test for the Gel Bed Permeability was conducted according to Applicants' test

procedure on pages 18-21 of the specification. The tests for the Absorbency Under Loading (0.3 psi for 30 minutes) and Absorbency Under Pressure – Free State were conducted, as closely as permissible, according to the same test procedures disclosed in Mukaida (column 4, lines 1-20). For each test procedure, the Sanyo sample was tested in triplicate. The moisture content of the Sanyo sample was determined to be about 3%.

For the Gel Bed Permeability test, the Sanyo superabsorbent was sieved to a particle size of 300-600 microns. The sample had an average GBP of $58.3 \times 10^{-9} \text{ cm}^2$.

For the Absorbency Under Loading (0.3 psi for 30 minutes) test, the sample was tested in its “as is” condition (no sieving) by placing 0.069 gram of the superabsorbent (M_{SAP}) into a cylinder (25.4 mm inside diameter) that had a 100 mesh stainless steel screen adhered to one end. This set-up yielded the same dry mass/area ratio as the 0.1 gram over the 30 mm cylinder disclosed in Mukaida. The superabsorbent was spread as uniformly as possible over the screen. A weight of 99.98 gm was placed on top of the superabsorbent, which resulted in a load of 19.7 gm/cm^2 (0.3 psi). The apparatus (cylinder containing the superabsorbent and weight) was placed into a nominal 12 cm diameter dish, which contained a 0.9% saline solution (60 ml). The apparatus was maintained in the saline solution for 30 minutes, after which time, the weight of the apparatus was determined (M_{swollen}). The AUL was determined from the M_{SAP} , M_{swollen} and the average mass of a wet empty apparatus (cylinder and weight) subject to the same test procedure.

For the Absorbency Under Pressure – Free State test, the sample was tested in its “as is” condition (no sieving) by placing 1 gm of the superabsorbent (M_{SAPdry}) into a “teabag” formed from two sheets of heat-sealable teabag material that was cut to 26 cm x 7.5 cm (nominally the same area as 20 cm x 10 cm size disclosed in Mukaida). Three sides of the teabag layers were heat sealed prior to adding the superabsorbent. After adding the superabsorbent in between the layers, the fourth side of the layers was sealed. The teabag containing the superabsorbent was placed into a pan containing 0.9% sodium chloride, and allowed to absorb for 30 minutes. Following the 30 minute soaking, the wet teabag containing the swollen superabsorbent was hung vertically to drain for 15 minutes, and then weighed to determine the mass of the wet teabag and the swollen superabsorbent (M_{wet}). The “Absorbency Under Pressure – Free State” was determined from the M_{SAPdry} , M_{wet} and the average mass of a wet empty teabag subject to the same test procedure.

The results show that the Sanyo superabsorbent is very similar to the absorbent resins disclosed in Mukaida. The Sanyo superabsorbent had similar Absorbency Under Loading and Absorbency Under Pressure – Free State, as the main absorbent resin disclosed in Mukaida (column 8, lines 64-67), as shown by the following average results.

Absorbency Under Loading (0.3 psi for 30 minutes) $SANYO = 25.7 \text{ g/g}$

Absorbency Under Loading (0.3 psi for 30 minutes) $MUKAIDA = 28 \text{ g/g}$

Absorbency Under Pressure – Free State $SANYO = 48.4 \text{ g/g}$

Absorbency Under Pressure – Free State $MUKAIDA = 50 \text{ g/g}$

The above results indicate that the Sanyo superabsorbent fits the characteristics of the absorbent resin disclosed in Mukaida, and is a good representative of the high capacity absorbent resins disclosed in Mukaida. However, the Sanyo superabsorbent falls outside the scope of superabsorbent materials disclosed by Applicants, as shown by its significantly lower Gel Bed Permeability (GBP) of $53.8 \times 10^{-9} \text{ cm}^2$. The superabsorbents used in Applicants' invention have GBP values greater than about $70 \times 10^{-9} \text{ cm}^2$. Thus, in light of the differences in intake rates and representative Gel Bed Permeability, Applicants respectfully submit that the absorbent resins disclosed in Mukaida do not possess the fluid properties of Applicants' claimed invention.

Therefore, for at least the above reasons, Applicants respectfully assert that Mukaida fails to teach or suggest Claims 1, 32 and 33. Since Claims 2-23 and 31 recite additional claim features and depend directly or indirectly from Claim 1, Applicants also respectfully assert that Mukaida fails to teach or suggest these remaining claims. Accordingly, Applicants respectfully request the withdrawal of this rejection.

IV. Conclusion

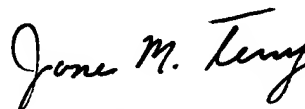
For at least the reasons given above, Applicants respectfully submit that Claims 1-23 and 31- 39 define patentable subject matter. Accordingly, Applicants respectfully request allowance of these claims.

The foregoing is submitted as a full and complete Response to the Office Action of February 26, 2003. Early and favorable consideration of the claims is requested.

Should the Examiner believe that anything further is necessary in order to place the application in better condition for allowance, the Examiner is respectfully requested to contact Applicants' representative at the telephone number listed below.

No additional fees are believed due; however, the Commissioner is hereby authorized to charge any deficiency, or credit any overpayment, to Deposit Account No. 11-0855.

Respectfully submitted,



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